



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-HQ-ES-2020-0114; FF09E22000 FXES1111090FEDR 234]

RIN 1018–BD04

Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for Egyptian Tortoise

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are listing the Egyptian tortoise (*Testudo kleinmanni*; syn. *Testudo wernerii*), a terrestrial tortoise from Libya, Egypt, and Israel, as a threatened species with a rule issued under section 4(d) of the Endangered Species Act of 1973 (Act), as amended. The rule issued under section 4(d) of the Act provides measures that are necessary and advisable to provide for the conservation of this species.

DATES: This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: This final rule is available on the internet at <https://www.regulations.gov>. Comments and materials we received, as well as supporting documentation we used in preparing this rule, are available for public inspection at <https://www.regulations.gov> at Docket No. FWS-HQ-ES-2020-0114.

FOR FURTHER INFORMATION CONTACT: Bridget Fahey, Chief, Division of Conservation and Classification, Ecological Services, U.S. Fish and Wildlife Service, MS: ES, 5275 Leesburg Pike, Falls Church, VA 22041–3803; telephone, 703–358–2171. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a

speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Previous Federal Actions

Please refer to the proposed listing rule for the Egyptian tortoise published in the *Federal Register* on November 9, 2021 (86 FR 62122), for a detailed description of previous Federal actions concerning this species.

Summary of Changes from the Proposed Rule

In preparing this final rule, we reviewed and fully considered comments from the public on our November 9, 2021, proposed rule. In this final rule, we make only two minor changes from the proposed rule: (1) We clarify that the listed entity of Egyptian tortoise (*Testudo kleinmanni*) includes the scientific name *Testudo wernerii* as an accepted synonym; and (2) we present new information on the species' population size, based on updated information regarding the size of the population in Israel. Additionally, while the preambular discussion in this final rule is not as detailed as the proposed rule, it is not meant to imply any changes between the proposed and final rules.

Summary of Comments and Recommendations

In the proposed rule published on November 9, 2021 (86 FR 62122), we requested that all interested parties submit written comments on the proposal by January 10, 2022. We also contacted appropriate Federal agencies, scientific experts, organizations, and management authorities from the range countries, as well as other interested parties, and invited them to comment on the proposal. All substantive information we received during the comment period has either been incorporated directly into this final determination or is addressed below.

Peer Reviewer Comments

We received comments from three peer reviewers. We reviewed all comments for substantive issues and new information regarding the information contained in the species status assessment (SSA) report. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve the final SSA report. Comments from peer reviewers provided general technical corrections and updates on status of the species within the range countries. We incorporated the peer reviewer comments into the final SSA report as appropriate.

Public Comments

Comment (1): Numerous commenters stated that the Act (16 U.S.C. 1531 et seq.) was only meant to protect species native to the United States and the Egyptian tortoise should not be listed because it is a foreign species.

Response: The Act does not distinguish between domestic and foreign species as it applies to our responsibilities to determine whether species are endangered or threatened. For example, the broad definitions of “species,” “fish or wildlife,” and “plant” in section 3 of the Act (16 U.S.C. 1532) do not differentiate between species native to the United States, species native to both the United States and one or more other countries, and species not native to the United States. Further, sections 4(b)(1)(A) and 4(b)(1)(B) of the Act (16 U.S.C. 1533(b)(1)(A) and (b)(1)(B)) expressly require the Service to consider efforts by a foreign nation prior to making a listing determination. The Act’s section 4(b)(5)(B) (16 U.S.C. 1533(b)(5)(B)) expressly requires the Service, insofar as practical, to provide notice of proposed regulations to and invite comment from foreign nations in which a species is believed to occur. Additionally, the findings and purposes at sections 2(a) and 2(b) of the Act (16 U.S.C. 1531(a) and (b)) also speak to the application of the Act to foreign species, and numerous provisions of the Act and its implementing

regulations refer to foreign jurisdictions (e.g., 16 U.S.C. 1537 and 1537a, 50 CFR 424.11(e)). In summary, if a species meets the Act's definition of an endangered or threatened species, the Service must list that species regardless of the country where it is found.

Comment (2): Numerous commenters stated there is no demonstrable benefit to listing the Egyptian tortoise under the Act because it is already protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Response: The purpose of CITES is to ensure that international trade in plants and animals does not threaten their survival in the wild. Protection provided by other laws, such as CITES, was taken into consideration when determining the status of the species. However, simply being protected by these other laws does not preclude the need to list a species under the Act if it meets the Act's definition of an endangered or threatened species. Further, while the Egyptian tortoise is already protected by CITES, additional conservation measures are provided to species listed as endangered or threatened under the Act, including recognition, requirements for Federal protection, and prohibitions against certain activities with the species. Recognition through listing results in public awareness and may encourage and result in conservation actions by foreign governments, Federal and State governments, private agencies and interest groups, and individuals. For example, listing the Egyptian tortoise under the Act can support the conservation efforts undertaken for the species in Libya, Egypt, and Israel, as well as under the CITES' Appendix-I listing, including research efforts to address conservation needs and funding for range-country conservation.

Listing under the Act can also help ensure that the United States and its citizens do not contribute to the further decline of the Egyptian tortoise through resulting Federal protections and prohibitions on certain activities such as import, export, take, interstate

commerce, and foreign commerce (see also **Available Conservation Measures**, below). For instance, adding a violation under the Act on top of a CITES violation could serve as an additional disincentive for any illegal trade in the species.

Comment (3): One commenter recommended that both *Testudo kleinmanni* and *Testudo wernerii* be used as scientific names when listing the species under the Act.

Response: The valid taxonomic status of the Egyptian tortoise is *Testudo kleinmanni*, and *Testudo wernerii* is accepted as a junior synonym (ITIS 2022, unpaginated; Attum *et al.* 2007a, p. 399). Thus, in this rule, we clarify that the Egyptian tortoise includes *Testudo wernerii* as a synonym for *Testudo kleinmanni*, and we include the synonym *Testudo wernerii* in the entry for the species in the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h). All Egyptian tortoises are included in this rule. See the SSA report for a thorough discussion of the taxonomic status of the species (Service 2022, pp. 2–4).

Comment (4): One commenter stated that the species is extinct in Egypt, and another commenter stated that the species occurs in very low numbers in the North Coast of Egypt.

Response: According to the best available information, both of these statements regarding the status of the species in Egypt are inaccurate. The Egyptian tortoise is extant in Egypt as it occurs in a very small population east of the Nile River in and on the periphery of the Zaranik Protected Area in North Sinai, Egypt. Conversely, the best available information indicates that the Egyptian tortoise is extirpated from the North Coast of Egypt where habitat quality decreases east of Libya, and formerly suitable habitat for the species has become uninhabitable to the degree that no individuals could survive in Egypt west of the Nile River.

Comment (5): Numerous commenters recommended that we issue a rule under section 4(d) of the Act to provide an exception for the commercial trade of Egyptian

tortoises within the United States for private individuals because captive-bred tortoises could be used for reintroductions into the wild and aid in the conservation of the species.

Response: We recognize that in well-managed circumstances captive breeding of wildlife can support conservation, for example by producing animals that could be used for reintroductions. However, we are not aware of any captive-breeding programs for the Egyptian tortoise in the United States for this purpose, and thus we are also not aware of captive-breeding programs practicing conservation breeding in a manner that would produce animals suitable for reintroduction. For threatened wildlife, such as the Egyptian tortoise, we may issue permits for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, for economic hardship, for zoological exhibition, for education purposes, and for special purposes consistent with the purposes of the Act.

We may also register persons subject to the jurisdiction of the United States through a captive-bred wildlife (CBW) program if certain established requirements are met under the CBW regulations (see 50 CFR 17.21(g); see also **Available Conservation Measures**, below). In addition, the 4(d) rule includes an exception for interstate commerce from public institutions to other public institutions, specifically museums, zoological parks, and scientific institutions, meeting the definition of “public” at 50 CFR 10.12. We found that the demand for Egyptian tortoises held at or captive-bred by these types of institutions and sold or otherwise transferred only to other qualifying institutions in the United States is likely not substantial nor is it likely to pose a significant threat to the wild population in the species’ range countries. Only specimens that have been legally imported and their offspring can qualify for this exception; possession of specimens traded contrary to CITES and their offspring is prohibited (16 U.S.C. § 1538(c)(1); 50 CFR 23.13).

Comment (6): Numerous commenters stated that tortoises bred in captivity by private individuals in the United States provide a source of genetic diversity for future reintroduction efforts and they produce more captively-bred tortoises than just the Association of Zoos and Aquarium facilities. Therefore, providing an exception for interstate commerce for private individuals will provide a crucial source of genetic diversity for future captive breeding and reintroduction efforts.

Response: The intent of the Act is to recover wild populations in their natural habitat whenever possible. Controlled propagation can support the recovery of some listed species and can be used to reverse declines and return listed species to suitable habitat in the wild. However, controlled propagation is not a substitute for addressing the primary threats to the species. Egyptian tortoises captive-bred in the United States by private individuals are not addressing primary threats to the species nor are the tortoises captive-bred for reintroduction purposes. Additionally, introducing captive-bred individuals increases the risk of releasing pathogens into wild populations. Therefore, captive breeding by private individuals in the United States could not be used to increase the wild population of the species in its range countries. However, well-managed captive-breeding programs by registered public zoos practicing conservation breeding in a manner that would produce animals suitable for reintroduction could be used to reintroduce species into the wild if that became warranted and justified.

Comment (7): Some commenters stated that if the Egyptian tortoise is harder to obtain in the United States because of prohibitions on interstate commerce, prices will increase, which in turn will increase illegal imports of the species into the United States.

Response: Commercial trade of the Egyptian tortoise is already largely prohibited as a result of species' inclusion in Appendix I of CITES in 1995. CITES Appendix-I species are considered threatened with extinction, and international trade is permitted only under exceptional circumstances, which generally precludes commercial trade. Very

few live tortoises or parts have been imported into the United States since then (CITES 2022, unpaginated). No evidence exists that listing the Egyptian tortoise as a threatened species will lead to an increase in illegal imports to the United States. Listing under the Act can also help ensure that the United States and its citizens do not contribute to the further decline of the Egyptian tortoise through resulting Federal protections and prohibitions on certain activities such as import, export, take, interstate commerce, and foreign commerce (see also **Available Conservation Measures**, below). For instance, adding a violation under the Act on top of a CITES violation could serve as an additional disincentive for any illegal trade in the species. Therefore, the CITES regulations in place and the additional protections provided by this final rule minimize the risk of illegal imports of wild Egyptian tortoises coming into the United States.

Comment (8): One commenter stated that the Service erred in its significant-portion-of-its-range analysis and advocated that we undertake a new analysis to evaluate whether the populations of the species are endangered in North Coast, Egypt; North Sinai, Egypt; and Israel. The commenter implied that because the populations are small in each of these three areas, the analysis should have led to a determination that the species is endangered in a significant portion of its range.

Response: In this final rule, we expand on the analysis we included in the November 9, 2021, proposed rule (see *Status Throughout a Significant Portion of Its Range*, below) for the three populations the commenter identifies, which we summarize in this response.

The Egyptian tortoise is extirpated from the North Coast of Egypt because of a combination of historical habitat loss and collection for the pet trade; thus, no population occurs in this area. Formerly suitable habitat for the species has become uninhabitable to the degree that no individuals could survive in Egypt west of the Nile River. As outlined in our Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in

the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species" (79 FR 37578; July 1, 2014), the term "range" means the general geographical area occupied by the species at the time we make a status determination under section 4 of the Act (see 79 FR 37578, July 1, 2014, pp. 37583–37585). In other words, we interpret "range" in these definitions to be current range, i.e., range at the time of our analysis. Several courts have upheld this interpretation (*Humane Society v. Zinke*, 865 F.3d 585 (DC Cir. 2017); *Center for Biological Diversity v. Zinke*, 900 F.3d 1053, 1066–67 (9th Cir. 2018); *Desert Survivors v. Dep't of the Interior*, F. Supp. 3d 1131 (N.D. Cal. 2018)). Therefore, under our significant portion of its range policy, the North Coast of Egypt does not merit evaluation as a significant portion of the species' range because the best available science indicates that the species has been extirpated from the North Coast of Egypt.

The two other Egyptian tortoise populations (in North Sinai, Egypt, and in Israel) discussed by the commenter are extant and are much smaller than the population in Libya; however, the smaller sizes of these two populations do not necessarily equate to the species being in danger of extinction in these portions of its range. The current condition of the populations of the Egyptian tortoise in North Sinai, Egypt and in Israel do not have imminent threats that place the species in danger of extinction. These populations partially occur within protected areas, are protected by those countries' laws, and are not subject to collection pressure. Even considering the smaller population sizes in North Sinai, Egypt, and in Israel, we considered whether either of these two populations is in danger of extinction and found that they are not, and would not have a different status than the rangewide status of the species. Because we reached a negative answer with respect to the status question for each population, we do not need to evaluate the significance question for that portion of the species' range.

Supporting Documents

The SSA report for the Egyptian tortoise represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought peer review of the SSA report. We sent the SSA report to five independent peer reviewers who have expertise in the biology, habitat, and threats to the species, and we received three responses. As described above under *Peer Reviewer Comments* in **Summary of Comments and Recommendations**, we reviewed these responses for substantive issues and new information regarding the information contained in the SSA report, to ensure that our determination is based on scientifically sound data, assumptions, and analyses. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve the final SSA report. We incorporated the peer reviewer comments into the final SSA report as appropriate.

I. Final Listing Determination

Background

A thorough review of the taxonomy, life history, distribution and population status, and ecology of the Egyptian tortoise is presented in the SSA report and the proposed rule (Service 2022; available at <https://www.regulations.gov> under Docket No. FWS-HQ-ES-2020-0114). We provide a very brief summary below.

The most distinguishing characteristic of the Egyptian tortoise is its remarkably small size (Highfield and Martin 2014, p. 1). The Egyptian tortoise is the smallest and least-known tortoise species inhabiting the Mediterranean basin (Buskirk 1985, pp. 35,

37), and the second smallest species of tortoise in the world (Woodland Park Zoo 2014, p. 1). Egyptian tortoises are herbivores with low reproductive potential. Males reach maturity at 5 years old, and females take at least 8 years because of physical limitations of laying eggs (Baha El Din 2020, pers. comm.; Attum et al. 2011, p. 10). One generation in the wild is estimated to be about 20 years (Perälä 2006, p. 60; Macale et al. 2009, p. 143), although the average age can be much shorter (Egyptian Environmental Affairs Agency 2009, p. 222).

The Egyptian tortoise is restricted to a narrow coastal zone in North Africa and the western and central Negev Desert in Israel, in the southeast Mediterranean, and has the most restricted range of all tortoises in the Mediterranean Basin (Baha El Din et al. 2003, entire). They need areas of sandy dunes to more solidified sands with plant cover from bushes and small shrubs and annual plants to eat. The species is active during the cooler part of the year and aestivates or experiences prolonged dormancy during the summer when temperatures are high and rainfall and food availability are low.

Historically, the Egyptian tortoise occurred on both sides of the Nile River, distributed along the southeast Mediterranean coast in Libya and Egypt, and in the western and central Negev Desert in Israel. The species currently exists in the three regions in Libya, in five small subpopulations in North Sinai, Egypt, and in the western and central Negev Desert in Israel. The Egyptian tortoise has been extirpated from the North Coast of Egypt and no longer occupies the historical part of its range from the Libyan border east to the Nile River.

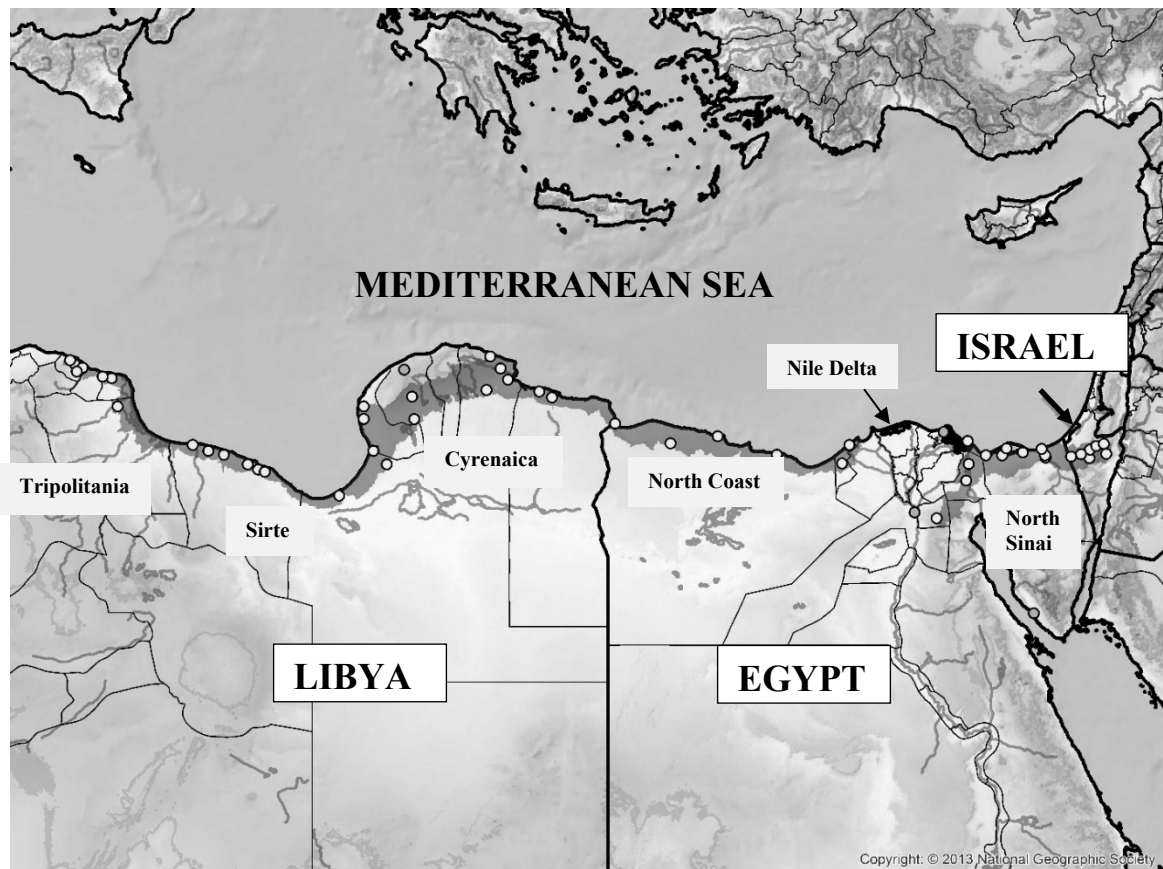


Figure 1. Distribution of the Egyptian tortoise, from Libya through Israel. The shaded area along the southeastern Mediterranean coast, on the coastline of Libya and Egypt, and into the Western and Central Negev Desert in Israel on the map above reflects the approximate historical range of the species. The Egyptian tortoise has been extirpated from the North Coast of Egypt; therefore, the species no longer occupies the historical part of the range in Egypt from the Libyan border east to the Nile Delta. The dots are recorded locations from the literature including both historical and current occurrence of the species. (Rhodin 2020, pers. comm; Rhodin et al. 2017).

Over the last three generations (or about 60 years), the Egyptian tortoise population has been reduced by approximately 90 percent throughout its range, including the extirpation of the species in North Coast, Egypt, which accounted for about 30 percent of the species' historical population (Perälä 2005, p. 894; Perälä 2006, p. 61; Rhodin 2020, pers. comm; Rhodin et al. 2017, p. 154; Baha El Din 1994, p. 6; Baha El Din et al. 2003, p. 651). The best available information indicates that the current population of Egyptian tortoise is approximately 10,000 individuals (see table, below).

Table of Estimates of the Historical and Current Populations for the Egyptian Tortoise.

Population Name	Historical Individuals (estimate of individuals present in the 1950s) ¹	Estimated Population in 2005 and 2006 ²	Best Estimate in 2022 ³

Libya (Cyrenaica)	22,600	5,000	<i>Libya</i> : At least 7,500 adults, not including non-breeding adults
Libya (Sirte)	Unknown	Unknown	
Libya (Tripolitania)	2,500	2,500	
Egypt (North Coast)	30,500	0 (was previously reintroduced in El Omayed Protected Area)	0
Egypt (North Sinai) and Israel	45,000	3,150, which are mostly in Israel	<i>Israel</i> : Conservative estimate for total population of 2,000–2,500 [^] .
		The population in North Sinai is about 100.	<i>North Sinai</i> : 5 very small subpopulations in one small population contain a total of 200–250 individuals.
Total Individuals	100,600	10,650	≈ 10,000 ⁴

¹(Perälä 2005; Perälä 2006)

²(Perälä 2005; Perälä 2006; Schneider and Schneider 2008)

³(Baha El Din 2020, pers. comm.; Attum 2020, pers. comm.; Israel Nature and Parks Authority (INPA) 2021)

⁴The current total population may be similar to the population estimated in 2005 and 2006. The current population in Libya is uncertain due to a lack of any recent field surveys. [^]The current population estimates (2021) in Israel have decreased since last assessed in 2006.

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species. In 2019, jointly with the National Marine Fisheries Service, the Service issued a final rule that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019). On the same day, the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 FR 44753; August 27, 2019).

The regulations that are in effect and therefore applicable to this final rule are 50 CFR part 424, as amended by (a) revisions that we issued jointly with the National

Marine Fisheries Service in 2019 regarding both the listing, delisting, and reclassification of endangered and threatened species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019); and (b) revisions that we issued in 2019 eliminating for species listed as threatened species are September 26, 2019, the Service's general protective regulations that had automatically applied to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 FR 44753; August 27, 2019).

The Act defines an "endangered species" as a species that is in danger of extinction throughout all or a significant portion of its range, and a "threatened species" as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may either encompass—together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, and then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

Foreseeable Future

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as the Services can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we

can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define the foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’ biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

We considered the threats of habitat loss and degradation and collection of the species for the pet trade, along with demographic factors of Egyptian tortoises, and determined that the foreseeable future was approximately 60 years. This timeline for the foreseeable future is based on several factors. The Egyptian tortoise matures slowly, and in the best of conditions has a low reproductive rate. Thus, the species depends on high survival rates and long reproductive lifespans of adults to increase population size (Wilbur and Morin 1988, in Díaz-Paniagua et al. 2001, p. 707). Because of the long generation length (up to 20 years) and slow reproductive rate, demographic responses of the species to the threats that are already ongoing will manifest increasingly over a significant period of time. Additionally, existing studies already document the species’ responses to threats over the past three generations or approximately 60 years (Perälä 2005, p. 894; Perälä 2006, p. 61; Rhodin 2020, pers. comm; Rhodin et al. 2017, p. 154; Baha El Din 1994, p. 6; Baha El Din et al. 2003, p. 651). We considered and incorporated the information underlying IUCN’s Red List assessment of the species that also takes into account the decline in abundance and range of the species, levels of exploitation, and direct observations by experts (IUCN 2012, unpaginated; Perälä 2005, p. 897; Perälä

2006, p. 65). We found the IUCN's information to be part of the best scientific and commercial information available for this species, and that predictions based on IUCN's information for this species can be reliable over approximately the next 60 years. We also note that IUCN reasonably projects that the species faces a greater-than-80-percent chance of extinction in the wild within the next 60 years.

Therefore, based on the best scientific and commercial data available, we conclude that over a period of 60 years we can make reliable predictions that both the future threats to the species and the species' response to those threats are likely.

"Reliable" does not mean "certain"; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions. Under this approach, because habitat loss and collection for the pet trade are the primary threats to the Egyptian tortoise currently and into the future, and the species has a slow reproductive rate in the best of conditions that depends on high survival rates and long reproductive lifespans of adults to increase population size, we evaluate how far into the future we can make reliable prediction about habitat loss and collection of the species and the responses of Egyptian tortoises to these threats. In addition to the slow, innate reproductive capacity of Egyptian tortoises, we considered and incorporated the information underlying IUCN's Red List assessment of the species that projects that the species faces a greater-than-80-percent chance of extinction in the wild within the next 60 years, taking into account the decline in abundance and range of the species, levels of exploitation, and direct observations by experts. We found the IUCN's information to be part of the best scientific and commercial information available for this species, and that predictions based on IUCN's information for this species can be reliable over approximately the next 60 years. Therefore, we identified 60 years, or 2080, as the foreseeable future for the threats of habitat loss and collection because that is the

period over which we can make reliable predictions as to the future condition of Egyptian tortoises.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data available regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent a decision by the Service on whether the species should be listed as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket FWS-HQ-ES-2020-0114 on <https://www.regulations.gov>. As noted above, the proposed rule includes more detail than this final rule, but that does not imply a change between the proposed and final rules.

To assess Egyptian tortoise's viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate change). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

Egyptian tortoises face similar threats to their viability throughout their range, although the magnitude may vary among Libya, Egypt, and Israel. The primary threats to the species are loss of habitat and collection of the species for the pet trade (Service 2022, pp. 30–39). Because Egyptian tortoises need areas of sandy dunes to more solidified sands with plant cover from bushes and small shrubs and annual plants to eat, habitat destruction throughout the range of the species caused by human activities is the major factor limiting suitable habitat necessary for the species' survival. Habitat loss may also occur because of changing environmental conditions from climate change. Protected areas, national parks, and nature reserves offer some suitable habitat and protection for the Egyptian tortoise. However, even the habitat in these areas is degraded and is also used for pastoral livestock grazing, which competes with Egyptian tortoise for vegetation (Attum et al. 2007b, entire; Baha El Din et al. 2003, p. 653; Attum et al. 2013, p. 74). Because of the land-use changes and habitat loss, the populations in each country have no

connectivity across international borders, including the populations in North Sinai, Egypt, and in Israel that are both on the east side of the Nile and are relatively close in proximity.

Egyptian tortoises were heavily collected from Egypt through much of the first half of the 20th century for sale as pets (Baha El Din 1994, p. 25). The mass collection of the species for the pet trade was recognized as early as 1933 (Flower 1933, p. 746) and continued until the late 1970s, by which time the species' population was extirpated from large parts of the North Coast of Egypt. Currently, the only populations in Egypt are very small and managed by locals in the Zaranik Protected Area in North Sinai. Commercial collection of the species is not currently a factor at this location. However, collection for the pet trade is the biggest threat to the species in Libya, which has the largest remaining population of the species. Collection of Egyptian tortoises is minimal in Israel. Bedouins use shells from dead tortoises and do not collect live tortoises, but some poaching by agricultural workers does occur, which has been reduced through increased outreach and enforcement by Israel Nature and Parks Authority (INPA 2021, p. 4).

Egyptian tortoises are highly sensitive to thermal stress, particularly increased temperature. Therefore, any marginal increase caused by climatic change would be limiting to their survival in the wild (Baha El Din 2020, pers. comm.). This impact has been observed first-hand in captive populations near Cairo, Egypt (only 100 kilometers (62 miles) south of the natural range) (Baha El Din 2020, pers. comm.). Tortoises aestivate under shrubs in the summer when the temperature is highest, food availability is least, and the warming is projected to be the most intense. However, tortoises are more active during the winter and spring when the mean temperatures are approximately 15 to 25 degrees Celsius (°C) (59 to 77 degrees Fahrenheit (°F)). Temperature is projected to rise moderately during the winter and may not reach levels that are directly detrimental to the tortoise.

The Egyptian tortoise is afforded some protection based on existing regulations in each of the range countries. These regulations have had varying success protecting the species' habitat from destruction and the species from collection for the pet trade. As discussed in further detail below, the inclusion of the Egyptian tortoise in Appendix I of CITES in 1995 was an important action for the conservation of the species, considering the decreasing population numbers and the amount of trade occurring up through the 1980s. However, despite its status in Appendix I of CITES, the best available information indicates that Egyptian tortoises are illegally traded internationally. The collection pressure from this illegal trade continues to harm the species, though at a reduced level that was previously attributed to the legal commercial trade while the species was in Appendix II of CITES (CITES Trade Database 2020; Theile et al. 2004, p. iii; Stengel et al. 2011, pp. 10–11, 19).

Current Conditions

The Egyptian tortoise's viability is influenced by its resiliency, adaptive capacity (representation), and redundancy. Resiliency for the Egyptian tortoise is measured by population size, distribution, and health throughout its range. Population size, quality of habitat where the species occurs (taking into account anthropogenic effects), whether a population is in a protected area, and the collection pressure of a population all influence the resiliency of the Egyptian tortoise. Overall, the Egyptian tortoise has remained relatively stable since 2005 (see table above). The species occurs in fragmented populations with moderate resiliency because there are multiple populations, some of which are partially in protected areas, and ongoing habitat degradation and collection pressure. The Egyptian tortoise resides in representative habitats on both sides of the Nile River, which provides the species with its resource needs and some ecological diversity in habitat west and east of the river. The existence of multiple, resilient populations reduces the likelihood that any single catastrophic event could affect one or more of the

populations simultaneously. We have not identified any catastrophic events that would affect the Egyptian tortoise across its entire range.

Future Condition

We projected the resiliency, representation, and redundancy of the Egyptian tortoise under two plausible future scenarios: (1) a status quo scenario in which human-caused impacts and tortoise population responses continue as the current trends indicate; and (2) a reduced-collection scenario in which the collection of Egyptian tortoises for the pet trade from Libya decreases as a result of Libyan authorities enacting regulations that improve enforcement and reduce the collection of the species. However, reducing collection in Libya is uncertain given the ongoing collection of Egyptian tortoises and geopolitical instability in the country. The two scenarios do not include variance or change in the rate of habitat loss caused by human activities such as development, agriculture and grazing, and military activities. The habitat is highly degraded and continues to decline throughout the range of the species. Additionally, we recognize the effects of climate change in the future but do not differentiate between representative concentration pathway (RCP) 4.5 and RCP 8.5 in the future scenarios because we could not distinguish between RCPs 4.5 and 8.5 at which temperature or timeframe the Egyptian tortoise would show signs of stress. Habitat loss and collection for the pet trade will have a more immediate and pronounced effect on the species and its habitat suitability. Therefore, we focused the future condition on habitat loss and collection pressure because of human activities.

Scenario 1

We project rangewide habitat degradation into the future under Scenario 1, and collection pressure continuing on the same trajectory as current conditions. Human population and development pressure are higher in North Coast, Egypt, and in Israel than in Libya and North Sinai, Egypt. Thus, we would not expect as much habitat loss from

development in Libya and North Sinai. However, because collection pressure is higher in Libya, we anticipate that the population in Libya will be substantially reduced.

Populations in Libya (one population across three regions), North Sinai, Egypt (one small population made up of five very small subpopulations), and Israel (one population in the Negev Desert) would decrease and become more fragmented, and we conclude that the resiliency of the species will decrease from moderate to low-to-moderate within the foreseeable future because of ongoing habitat degradation and collection pressure. A decreasing population of Egyptian tortoise residing in increasingly degraded habitat reduces the species' ability to sustain populations in the event of stochastic variation. We project that the population in Libya would be substantially reduced because of ongoing collection, but would still occur within the three regions in Libya at much smaller population sizes. The tortoise populations in North Sinai, Egypt, and the Negev Desert in Israel would remain, but would decrease. Therefore, the species will continue to occupy the same areas as it currently occupies. The Egyptian tortoise would occur in each country, west and east of the Nile River, and maintain some ecological diversity between the populations. Thus, representation would likely be similar to current conditions. However, representative habitat types in which the species occurs would continue to be much fewer than they were historically, and would continue to decline. We have not identified any catastrophic events that would affect Egyptian tortoises across its entire range. Therefore, the species would have redundancy to withstand catastrophic events.

Scenario 2

Similar to Scenario 1, we project that rangewide habitat degradation will continue in the future, but under Scenario 2, the collection pressure in Libya will be reduced. Libyan authorities and local academics had been seeking to end collection and exportation of Egyptian tortoise from Libya. However, we acknowledge that with the

ongoing collection of the species and geopolitical instability in Libya, implementing conservation measures to reduce collection for the pet trade is uncertain. Nonetheless, if collection is reduced, the population in Libya would not decline at the current trajectory, and at a minimum, the Libyan population of Egyptian tortoises would decline at a slower rate compared to current conditions. However, this population would have low-to-moderate resiliency within the foreseeable future because the habitat will continue to be degraded, the population is not in a protected area, and even if conservation measures are implemented, we conclude some collection for the pet trade will continue. The populations in North Sinai, Egypt, and the Negev Desert in Israel would experience a decrease in resiliency in the foreseeable future as described under Scenario 1.

Because the populations in Libya, in North Sinai, Egypt, and in Israel would remain, the Egyptian tortoise would occur in each country, west and east of the Nile River, and represent the same ecological diversity and habitats between the populations as current conditions, although at decreasing levels in each population. Similar to Scenario 1, the species would occupy the same areas as it currently occupies, which are fewer than the species historically occupied, and suitable habitat will continue to decline. Because we have not identified any catastrophic event that would affect the species throughout its range, the species will have redundancy to withstand catastrophic events.

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but we have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then accumulates and evaluates the effects of all the factors that may be influencing the species, including threats and conservation efforts. Because the

SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative-effects analysis.

Table of abundance, habitat quality, presence of protected areas, and collection pressure of Egyptian tortoises comparing the current condition to future conditions under scenarios 1 and 2.

		Factors Considered			
		Abundance	Habitat Quality	Collection Pressure	Protected Areas
Current Conditions		Egyptian tortoise is present in three populations in Libya and one population in Egypt and in Israel	Highly degraded and fragmented with few annual plants and shrubs available	Collection of the species occurs in Libya. Populations in Egypt and Israel are not collected.	No protected areas in Libya. Populations in Egypt and Israel are partially in protected areas.
Future Condition Scenarios	Scenario 1: Status Quo	Egyptian tortoise is present, but substantially reduced in Libya. The species is present in Egypt and Israel and is likely declining	Highly degraded and fragmented with few annual plants and shrubs available	Collection of the species continues in Libya on the same trajectory. Populations in Egypt and Israel are not collected	No additional conservation programs to manage habitat or reintroduce the species in protected areas
	Scenario 2: Reduced Collection from Libya	Egyptian tortoise is present in its existing populations in Libya, Egypt, and Israel and declining, but declining slower in Libya because of reduced collection	Highly degraded and fragmented with few annual plants and shrubs available	Reduced collection of the species in Libya and export to other countries. Populations in Egypt and Israel are not collected	No additional conservation programs to manage habitat or reintroduce the species in protected areas

Conservation Efforts and Regulatory Mechanisms

The Egyptian tortoise is afforded some protection based on existing regulations in each of the range countries. However, these regulations have had varying success protecting the species' habitat from destruction and the species from collection for the pet trade. Protected areas, national parks, and nature reserves offer some suitable habitat and protection for the Egyptian tortoise, although habitat in protected areas is degraded and is subject to livestock grazing. Additionally, lax enforcement in these areas may provide opportunities for tortoise poaching and smuggling.

In Egypt it is illegal to collect, possess, or sell protected species or wild animals, dead or alive (Law No.4 of 1994, Ministry of State for Environmental Affairs 2022, unpaginated). Although enforcement is sporadic, it is increasing, and implementation and screening at airports for species listed under CITES has resulted in confiscation of some

Egyptian tortoises intended for the illegal pet trade (Baha El Din et al. 2003, p. 653). Zaranik Protected Area in North Sinai, Egypt, contains Egyptian tortoises, and local Bedouins manage the population and protect the species from habitat degradation and collection. A program operated by Bedouin women contributes to raising awareness for the species through the production of handicrafts with tortoise motifs (Baha El Din et al. 2003, p. 654; Attum et al. 2007b, p. 399).

In Libya, the Egyptian tortoise is covered by a resolution from the Minister of Agriculture in favor of their protection and to prevent trading and export (Khalifa in litt., to IUCN Species Survival Commission (SSC) Trade Specialist Group 1993, in CITES uplisting proposal 1995, p. 25). However, we have no information to indicate the resolution is enforceable. Additionally, the lists of species protected in Libya do not include the Egyptian tortoise (Baha El Din 2002, p. 2; McGrath 2011, unpaginated). Accordingly, domestic regulatory mechanisms in Libya are either nonexistent or potentially lacking enforcement authority.

In Israel, the Wildlife Protection Law (enacted in 1955 and amended in 1999) has proved to be an effective instrument in the protection of wildlife. All species of wild animals anywhere in Israel are completely protected, except for designated pest species and declared game species (Israel Ministry of Foreign Affairs (IMFA) 1997, unpaginated; Wildlife Protection Law 5715-1955). The nature reserve Holot Agur in Israel was established in 2010, and covers approximately 176 square kilometers (km²) (68 square miles (mi²)) of the Holot Agur sands area in the western Negev Desert, which overlaps about one-fifth of the best known and studied population of Egyptian tortoises in Israel (Buskirk 1993, unpaginated).

Libya, Egypt, and Israel are all Parties to CITES, and the Egyptian tortoise is a CITES-protected species. The Egyptian tortoise was included in Appendix II of CITES in 1975, under the genus-level listing of *Testudo* spp., and the species subsequently was

transferred to Appendix I on February 16, 1995. Species included in Appendix I receive the highest level of protection under CITES (CITES Article II, 1. and 4.; CITES Article III; 50 CFR part 23). Including the species in Appendix I of CITES was an important action for the conservation of the species, considering the decreasing population numbers and the level of trade occurring through the 1980s. However, despite the species' status in Appendix I of CITES, the best available information indicates that Egyptian tortoises are illegally traded internationally. The collection pressure continues to harm the species, although at a reduced level compared to the collection pressure while the species was in Appendix II (CITES Trade Database 2020; Theile et al. 2004, p. iii; Stengel et al. 2011, pp. 10–11, 19). International trade for Appendix-I species is permitted only under exceptional circumstances, and trade primarily for commercial purposes is prohibited, with limited exceptions for qualifying specimens bred in captivity for commercial purposes by CITES-registered facilities and pre-Convention specimens (CITES Article II, 1. and 4.; CITES Article III; CITES Article VII, 2. and 4.; 50 CFR part 23). There are currently no CITES-registered breeding facilities for the species.

Determination of Egyptian Tortoise's Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an “endangered species” as a species in danger of extinction throughout all or a significant portion of its range, and a “threatened species” as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of endangered species or threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C)

disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

Status Throughout All of Its Range

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we found that habitat loss and degradation continue throughout the species' range because of a suite of ongoing human activities, and are the major factor limiting the availability of suitable habitat (Factor A). Collection of the species is ongoing and a significant threat in Libya, where the largest remaining population of Egyptian tortoise occurs (Factor B). Collection for the pet trade is not known to be a major factor in North Sinai, Egypt, or in Israel, although minimal poaching likely occurs in Israel. However, the potential exists that commercial collectors may target Egyptian tortoises in Zaranik Protected Area in the future. The Egyptian tortoise is afforded some protection in Egypt and Israel based on existing regulations, which have had minimal success protecting the species and its habitat. No enforceable conservation measures for the species are in place in Libya. The species' inclusion in Appendix I of CITES in 1995 substantially reduced the international trade in wild specimens that was occurring primarily for commercial purposes, although some illegal commercial trade continues despite the species' status in Appendix I.

The total Egyptian tortoise population is estimated to be nominally fewer in 2022 than it was in 2005–2006. Despite losses in numbers and habitat, approximately 10,000 Egyptian tortoises occur within 7,929–15,857 km² (3,061–6,122 mi²) of suitable habitat across the species' range in the Mediterranean coastal area of Libya; North Sinai, Egypt; and the Negev Desert in Israel (Perälä 2005, p. 894; Perälä 2006, p. 61; Rhodin 2020, pers. comm.).

Based on the best available information, the population over the last 15 years may be steady but appears to have slightly declined. This appearance of a steady population

over the past 15 years could be a result of a combination of factors. It could be uncertainty in the data. It could reflect the possibility that more tortoises exist in Libya than previously understood. It could also be because collection for the pet trade briefly slowed at the start of the uprising against the Libyan Government in 2011. In any case, the species occurs in multiple populations, with a total population that has drastically declined from historical levels. The species retains representation across most of its historical range even though it has been extirpated from North Coast of Egypt. The two populations east of the Nile River in North Sinai, Egypt, and the Negev Desert, Israel, are partially in protected areas with varying levels of enforcement. We also considered whether the future species' response to past, currently occurring, or imminent future threats would significantly change the species' current viability, and concluded it would not. Therefore, after assessing the best available information, we conclude the Egyptian tortoise has sufficient resiliency, redundancy, and representation that with its current numbers and distribution it is not in danger of extinction throughout all of its range.

We next considered whether the Egyptian tortoise is likely to become in danger of extinction throughout all of its range within the foreseeable future, which we determined for the species to be three generations of the species (approximately 60 years). Based on projected increases in the human population along the Mediterranean coast within the range of the species, we expect both the species' population and habitat to decline into the future because of ongoing habitat degradation and loss, and collection for the pet trade. Additionally, habitat degradation and loss are likely to be amplified by synergistic effects associated with the consequences of climate change. Projections for the Mediterranean region reveal warming in all seasons and reduced precipitation throughout the year. Egyptian tortoises are highly sensitive to thermal stress, particularly increased temperature. Therefore, any marginal increase resulting from climatic change, combined

with the loss of habitat (i.e., shrubs needed for thermal buffering), would limit the species' ability to survive in the wild.

We project that the multiple threats to the species and its habitat will cause the size of the population and the amount of suitable habitat for the species to decline, thereby decreasing the resilience of the population into the future. Existing regulatory measures have had minimal success conserving the species' habitat and but have reduced the number of tortoises collected for the pet trade. Although the species is not in danger of extinction throughout all of its range now, the factors identified above continue to negatively affect the Egyptian tortoise and its habitat such that it is likely to become in danger of extinction within the foreseeable future throughout all of its range. Based on the best available scientific studies and information assessing land-use trends, collection pressure, adequacy of law enforcement, temperature and rainfall projections because of climate change, and predictions about how those threats may affect the Egyptian tortoise, we conclude that the Egyptian tortoise will lack sufficient resiliency, redundancy, and representation for its continued existence to be secure within the foreseeable future. We, therefore, determine that the Egyptian tortoise is likely to be in danger of extinction within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity v. Everson*, 2020 WL 437289 (D.D.C. 2020) (*Everson*), vacated the aspect of the Final Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species" (Final Policy; 79 FR 37578; July 1, 2014) that provided that the Service does not undertake an analysis of significant portions of a species' range if the species

warrants listing as threatened throughout all of its range. Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species’ range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the “significance” question or the “status” question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species’ range.

Following the court’s holding in *Everson*, we consider whether there are any significant portions of the species’ range where the species is in danger of extinction now (i.e., endangered). In undertaking this analysis for the Egyptian tortoise, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered. We examined whether the threats are geographically concentrated in any portion of the species’ range at a biologically meaningful scale. We considered the following threats: habitat degradation and loss, collection for the pet trade, and small population size, including cumulative effects. The suite of activities, such as urban development, agriculture, grazing, and military exercises, that has caused, and continues to cause, the loss and degradation of habitat occurs across all populations throughout the species’ range. The available data do not suggest that these threats to the habitat are concentrated in any area at a biologically meaningful scale. Therefore, the threats causing habitat loss do not themselves result in the species being in danger of extinction in any portion of its range.

Collection for the pet trade is the most significant threat to the species in Libya and is currently concentrated in this part of the species’ range. Collection has historically

been a significant threat across Egypt, particularly in the North Coast, which combined with habitat loss led to the extirpation of the species from this part of its range. Collection for the pet trade is not known to be a factor in North Sinai, Egypt, or in Israel, although minimal poaching occurs in Israel and there is concern that commercial collectors will target Egyptian tortoises in Zaranik Protected Area in the future. Libya contains the majority of the population of Egyptian tortoises. While the threat of collection for the pet trade is concentrated in Libya, which is the only population on the west side of the Nile River, the effect of collection does not place the species in danger of extinction in this portion of its range, even in combination with other threats to the species such as habitat loss. In other words, the concentrated collection pressure in Libya is not severe enough to make the species currently endangered in this portion of its range given its size and distribution throughout its historical range in this portion.

We also considered whether the populations of Egyptian tortoises in North Sinai, Egypt, and in the Negev Desert in Israel may each be more vulnerable because of their smaller population sizes. These two populations are smaller than historical estimates and are the only populations east of the Nile River, including the only remaining population in Egypt that historically occurred along a much larger area of coastline in Egypt. However, the smaller size of the populations themselves do not equate to the populations being in danger of extinction.

Each population may be more vulnerable to a loss of genetic diversity and catastrophic events because of their small sizes; however, we have no information that the species is affected by inbreeding depression, and we are not aware of catastrophic events that would make the species currently in danger of extinction in these portions of its range. While the populations in North Sinai, Egypt, and in Israel are smaller, particularly the population in North Sinai, the populations do not currently face collection pressure. Additionally, because of awareness and management of the species in these two

populations, and protections provided to the species and its habitat through existing laws and designation of protected areas that overlap parts of where these populations occur, the populations in North Sinai, Egypt, and in Israel are not currently in danger of extinction in these portions of the species' range.

We determined there is no portion of the species' range where it may be in danger of extinction, and because we reached a negative answer with respect to the "status" question, we do not need to evaluate the "significance" question for that portion of the species' range. Our approach to this analysis is consistent with the courts' holdings in *Desert Survivors v. Dep't of the Interior*, F. Supp. 3d 1131 (N.D. Cal. 2018), and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

Determination of Status

Our review of the best available scientific and commercial information indicates that the Egyptian tortoise meets the Act's definition of a threatened species. Therefore, we list the Egyptian tortoise as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

The purposes of the Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in the Act. There are a number of steps available to advance the conservation of species listed as endangered or threatened species under the Act. As explained further below, these conservation measures include: (1) recognition, (2) recovery actions, (3) requirements for Federal protection, (4) financial assistance for conservation programs, and (5) prohibitions against certain practices.

First, recognition through listing results in public awareness, as well as in conservation actions by Federal, State, Tribal, and local agencies; foreign governments; private organizations; and individuals. Second, the Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species.

Third, our regulations at 50 CFR part 402 implement the interagency cooperation provisions found under section 7 of the Act. Under section 7(a)(1) of the Act, Federal agencies are to use, in consultation with and with the assistance of the Service, their authorities in furtherance of the purposes of the Act. Section 7(a)(2) of the Act, as amended, requires Federal agencies to ensure, in consultation with the Service, that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of its critical habitat.

A Federal “action” that is subject to the consultation provisions of section 7(a)(2) of the Act is defined in our implementing regulations at 50 CFR 402.02 as all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. With respect to this species, there are no actions known to require consultation under section 7(a)(2) of the Act. Given the regulatory definition of “action,” which clarifies that it applies to activities or program “in the United States or upon the high seas,” the Egyptian tortoise is unlikely to be the subject of section 7 consultations, because the entire life cycle of the species occurs in terrestrial areas outside of the United States unlikely to be affected by U.S. Federal actions. Additionally, no critical habitat will be designated for this species because, under 50 CFR 424.12(g), we will not designate critical habitat within foreign countries or in other areas outside of the jurisdiction of the United States.

Fourth, section 8(a) of the Act (16 U.S.C. 1537(a)) authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered or threatened species in foreign countries. Sections 8(b) and 8(c) of the Act (16 U.S.C. 1537(b) and (c)) authorize the Secretary to encourage conservation programs for foreign listed species, and to provide assistance for such programs, in the form of personnel and the training of personnel.

Fifth, the Act puts in place prohibitions against particular actions. When a species is listed as endangered, certain actions are prohibited under section 9 of the Act and are implemented through our regulations in 50 CFR 17.21. For endangered wildlife, these include prohibitions under section 9(a)(1) of the Act on import; export; delivery, receipt, carriage, transport, or shipment in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; and sale or offer for sale in interstate or foreign commerce of any endangered species. It is also illegal to take within the United States or on the high seas; or to possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any endangered species that have been taken in violation of the Act. It is unlawful to attempt to commit, to solicit another to commit or to cause to be committed, any of these acts. Exceptions to the prohibitions for endangered species may be granted in accordance with section 10 of the Act and our regulations at 50 CFR 17.22.

The Act does not specify particular prohibitions and exceptions to those prohibitions for threatened species. Instead, under section 4(d) of the Act, the Secretary, as well as the Secretary of Commerce depending on the species, are given the discretion to issue such regulations as deemed necessary and advisable to provide for the conservation of species listed as threatened species. The Secretary also has the discretion to prohibit by regulation with respect to any threatened species any act prohibited under section 9(a)(1) of the Act. Exercising this discretion, the Service has developed general

prohibitions in the Act's regulations (50 CFR 17.31) and exceptions to those prohibitions (50 CFR 17.32) that apply to most threatened wildlife species. Under 50 CFR 17.32, permits may be issued to allow persons to engage in otherwise prohibited acts for certain purposes.

Under section 4(d) of the Act, the Secretary, who has delegated this authority to the Service, may also develop specific prohibitions and exceptions tailored to the particular conservation needs of a threatened species. In such cases, the Service issues a 4(d) rule that may include some or all of the prohibitions and authorizations set out in 50 CFR 17.31 and 17.32, but which also may be more or less restrictive than the general provisions at 50 CFR 17.31 and 17.32. For Egyptian tortoise, the Service has determined that a species-specific 4(d) rule is necessary and advisable.

As explained below, the 4(d) rule for the Egyptian tortoise, in part, makes it illegal for any person subject to the jurisdiction of the United States to import or export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any Egyptian tortoise. It is also illegal to take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these) any Egyptian tortoise within the United States or on the high seas; or possess, sell, deliver, carry, transport, or ship, by any means whatsoever any Egyptian tortoise that has been taken in violation of the Act. It is unlawful to attempt to commit, to solicit another to commit or to cause to be committed, any of these acts. Certain exceptions apply to agents of the Service and State conservation agencies. An exception is also provided in the 4(d) rule for interstate commerce from public institutions to other public institutions, specifically museums, zoological parks, and scientific institutions that meet the definition of "public" at 50 CFR 10.12.

We may issue permits to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits for threatened species are codified at 50 CFR 17.32, and general Service permitting regulations are codified at 50 CFR part 13. With regard to threatened wildlife, a permit may be issued for scientific purposes, to enhance the propagation or survival of the species, for incidental take in connection with otherwise lawful activities, for economic hardship, for zoological exhibition, for educational purposes, and for special purposes consistent with the purposes of the Act. The Service may also register persons subject to the jurisdiction of the United States through its captive-bred wildlife (CBW) program if certain established requirements are met under the CBW regulations (see 50 CFR 17.21(g)). Through a CBW registration, the Service may allow a registrant to conduct certain otherwise prohibited activities under certain circumstances to enhance the propagation or survival of the affected species, including take; export or re-import; delivery, receipt, carriage, transport, or shipment in interstate or foreign commerce, in the course of a commercial activity; or sale or offer for sale in interstate or foreign commerce. A CBW registration may authorize interstate purchase and sale only between entities that both hold a registration for the taxon concerned. The CBW program is available for species having a natural geographic distribution not including any part of the United States and other species that the Service Director has determined to be eligible by regulation. The individual specimens must have been born in captivity in the United States. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

It is our policy, as published in the *Federal Register* on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a listing on proposed and

ongoing activities within the range of the species. The discussion below regarding protective regulations under section 4(d) of the Act complies with our policy.

II. Final Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened. The U.S. Supreme Court has noted that statutory language like “necessary and advisable” demonstrates a large degree of deference to the agency (see *Webster v. Doe*, 486 U.S. 592 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting the prohibitions under section 9.

The courts have recognized the extent of the Secretary’s discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld rules developed under section 4(d) as a valid exercise of agency authority where they prohibited take of threatened wildlife, or include a limited taking prohibition (see *Alsea Valley Alliance v. Lautenbacher*, 2007 U.S. Dist. Lexis 60203 (D. Or. 2007); *Washington Environmental Council v. National Marine Fisheries Service*, 2002 U.S. Dist. Lexis 5432 (W.D. Wash. 2002)). Courts have also upheld 4(d)

rules that do not address all of the threats a species faces (see *State of Louisiana v. Verity*, 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, “once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [s]he may choose to forbid both taking and importation but allow the transportation of such species” (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

Exercising this authority under section 4(d), as explained below, we developed and are adopting a species-specific rule that sets out all of the protections and prohibitions designed to address the Egyptian tortoise’s specific threats and conservation needs. Although the statute does not require us to make a “necessary and advisable” finding with respect to the adoption of specific prohibitions under section 9, we find that this rule as a whole satisfies the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the Egyptian tortoise.

As discussed above under **Summary of Biological Status and Threats**, we have concluded that the Egyptian tortoise is likely to become in danger of extinction within the foreseeable future primarily because of habitat loss and degradation and collection for the pet trade, in concert with climate change. Under the 4(d) rule, certain prohibitions and provisions that apply to endangered wildlife under section 9(a)(1) prohibitions will help minimize threats that could cause further declines in the species’ status. The provisions of the 4(d) rule promote conservation of the Egyptian tortoise by ensuring that activities undertaken with the species by any person under the jurisdiction of the United States are also supportive of the conservation efforts undertaken for the species in Libya, Egypt, and Israel, as well as under the CITES Appendix-I listing. The provisions of the 4(d) rule are one of many tools we will use to promote the conservation of the Egyptian tortoise.

Provisions of the 4(d) Rule

In the SSA report, we identify factors such as habitat loss and degradation and collection of the species for the pet trade, in concert with climate change, that have negative effects on this species and its habitat. Additionally, we identify existing regulatory mechanisms in the tortoise's range countries of Libya, Egypt, and Israel to conserve the Egyptian tortoise, as well as the international measures of CITES for Appendix-I species. While we have found these regulatory mechanisms are not sufficient to prevent the species from likely becoming in danger of extinction within the foreseeable future throughout all of its range, we recognize the benefits of these regulatory mechanisms in helping to conserve the species.

The 4(d) rule provides for the conservation of the Egyptian tortoise by prohibiting the following activities, except as otherwise authorized or permitted: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce unlawfully taken specimens or offspring of unlawfully taken specimens.

As discussed above under **Summary of Biological Status and Threats**, habitat loss and degradation and collection of the species for the pet trade are affecting the status of the Egyptian tortoise. A suite of activities has the potential to affect the Egyptian tortoise in its range countries, including urban development, agricultural conversion, grazing, military exercises, and collection for the pet trade. Habitat degradation will continue in the species' range countries. Prohibiting take (which applies to take within the United States, within the territorial sea of the United States, or upon the high seas) will indirectly contribute to conservation of the species in its range countries of Libya, Egypt, and Israel by helping prevent any captive-held Egyptian tortoises in the United States being used to establish a domestic market for trade of Egyptian tortoise parts or for

the commercial pet trade. For the same reason, regulating interstate commerce in the species in the course of commercial activity by persons subject to the jurisdiction of the United States can benefit the species in the wild by limiting demand in the United States to noncommercial activities and permitted commercial activities for scientific purposes or to enhance the propagation or survival of the species in the wild, such as activities associated with bona fide conservation breeding. The United States is not a primary destination for Egyptian tortoises. However, collection of the species for the illegal international pet trade is ongoing. Further regulating import and export to, from, and through the United States and foreign commerce by persons subject to the jurisdiction of the United States could deter breeding and demand for the species, and help conserve the species by eliminating the United States as a potential market for illegally collected and traded Egyptian tortoises.

The 4(d) rule provides an exception for interstate commerce from public institutions to other public institutions, specifically museums, zoological parks, and scientific institutions that meet the definition of “public” at 50 CFR 10.12. Demand for Egyptian tortoises held at or captive-bred by these types of institutions in the United States is not substantial, nor is it likely to pose a significant threat to the wild population in the species’ range countries. As defined in our regulations, “public” museums, zoological parks, and scientific institutions refers to such as are open to the general public and are either established, maintained, and operated as a governmental service or are privately endowed and organized but not operated for profit. This exception applies unless prohibited by CITES regulations, for example if use after import is restricted under 50 CFR 23.55.

We may issue permits to carry out otherwise prohibited activities, including those described above, involving threatened wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.32. With regard to threatened wildlife, a

permit may be issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act. As noted above, we may also authorize certain activities associated with conservation breeding under CBW registrations. We recognize that captive breeding of wildlife can support conservation, for example by producing animals that could be used for reintroductions. We are not aware of any captive-breeding programs for the Egyptian tortoise for this purpose. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act. The 4(d) rule applies to all live and dead Egyptian tortoise parts and products, and supports conservation management efforts for Egyptian tortoise in the wild in Libya, Egypt, and Israel.

Required Determinations

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act (42 U.S.C. 4321 et seq.) need not be prepared in connection with listing a species as an endangered or threatened species under the Endangered Species Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov> and upon request from the Branch of Delisting and Foreign Species (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this rule are the staff members of the U.S. Fish and Wildlife Service’s Species Assessment Team and the Branch of Delisting and Foreign Species.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361-1407; 1531-1544; and 4201-4245, unless otherwise noted.

2. In § 17.11, amend paragraph (h) by adding an entry for “Tortoise, Egyptian” to the List of Endangered and Threatened Wildlife in alphabetical order under REPTILES to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* * * *	* * *			
REPTILES				
* * * *	* * *			
Tortoise, Egyptian	<i>Testudo kleinmanni</i> (syn. <i>Testudo wernerii</i>)	Wherever found	T	87 FR [Insert <i>Federal Register</i> page where the document begins], [Insert date of publication in the <i>Federal Register</i>]; 50 CFR 17.42(l). ^{4d}

3. Amend § 17.42 by adding paragraphs (j) through (l) to read as follows:

§ 17.42 Special rules—reptiles.

* * * *

(j) [Reserved]

(k) [Reserved]

(l) Egyptian tortoise (*Testudo kleinmanni*, syn. *Testudo wernerii*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the Egyptian tortoise. Except as provided under paragraph (l)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

(i) Import or export, as set forth for endangered wildlife at § 17.21(b).

(ii) Take, as set forth for endangered wildlife at § 17.21(c)(1).

(iii) Possession and other acts with unlawfully taken specimens, as set forth for endangered wildlife at § 17.21(d)(1).

(iv) Interstate or foreign commerce in the course of commercial activity, as set forth for endangered wildlife at § 17.21(e).

(v) Sale or offer for sale in interstate or foreign commerce, as set forth for endangered wildlife at § 17.21(f).

(2) *Exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Sell, offer for sale, deliver, receive, carry, transport, or ship in interstate commerce live Egyptian tortoises from one public institution to another public institution, if such activity is in accordance with 50 CFR part 23. For the purposes of this paragraph,

“public institution” means a museum, zoological park, and scientific institution that meets the definition of “public” at 50 CFR 10.12.

(iii) Take, as set forth at § 17.21(c)(2) through (c)(4) for endangered wildlife.

(iv) Possess and engage in other acts, as set forth at § 17.21(d)(2) for endangered wildlife.

(v) Conduct activities as authorized by a captive-bred wildlife registration under § 17.21(g) for endangered wildlife.

Martha Williams,
Director,
U.S. Fish and Wildlife Service.

[FR Doc. 2023-06312 Filed: 3/29/2023 8:45 am; Publication Date: 3/30/2023]